

Organizations successfully scaling their AI initiatives see biggest benefit in growing revenue, ahead of improving operational efficiency

Latest Capgemini research highlights what AI-at-scale leaders are doing to succeed

Paris, July 1, 2020 – A new report from the <u>Capgemini Research Institute</u> examines the pace of enterprise Artificial Intelligence (AI) adoption in the last three years. Over half (53%) of organizations have now moved beyond AI pilots, a marked increase from 36% in <u>Capgemini's 2017</u> report on the same subject. Furthermore, 78% of AI-at-scale leaders¹ continue to progress on their AI initiatives at the same pace as before COVID-19, while another 21% have increased the pace of their deployment. This is in stark contrast to the "struggling organizations"²: 43% of whom have pulled their investments while another 16% have suspended all AI initiatives due to high business uncertainties related to COVID-19.

The report, '<u>The AI Powered Enterprise: Unlocking the potential of AI at scale</u>,' reveals that the successful implementation of AI at scale delivers tangible benefits on the top line, with 79% of AI-at-scale leaders seeing more than a 25% increase in sales of traditional products and services. In addition, 62% of the AI-at-scale leaders saw at least a 25% decrease in the number of customer complaints, and 71% witnessed at least a 25% reduction in security threats.

Sector view: Life sciences and Retail continue to lead the way in AI adoption; Financial Services and Utilities lag

In terms of the top five sectors leading AI adoption, life sciences and retail organizations are far ahead of others making up 27% and 21% of the AI-at-scale leaders respectively; followed by automotive and consumer products with 17% each, and then telecommunications (14%). Only 38% of life sciences organizations have either suspended or pulled investments because of COVID-19, compared to the insurance (66%), banking (64%) and utilities (64%) sectors. This reflects the importance of e-Health in today's context, where virtual assistants, contact tracing apps and chatbots are proliferating as organizations, like the World Health Organization, launch AI-based tools to gather as well as provide information during the ongoing pandemic³.

Trusted, quality data is essential for scaling AI

AI-at-scale leaders rank "improving data quality" as the number one approach that helps them generate more benefits from their AI systems. A strong data governance ensures that the AI teams have the right quality of data and improves the trust placed in data among the executives. Establishing the required technology platforms,

¹ The AI-at-scale leaders cohort includes 13% of the total organizations surveyed that have rolled out multiple AI applications across numerous teams.

² The struggling organizations cohort are organizations who have begun their AI pilots pre-2019 but have been unable to deploy even a single application in production; these form 72% of the organizations surveyed.

³ Source: WHO, "WHO launches a chatbot on Facebook Messenger to combat COVID-19 misinformation," April 15, 2020.



such as a hybrid cloud architecture and democratizing the data access, serve as core building blocks for scaling AI.

Hiring dedicated AI leads is key to supporting the AI goals of an organization

Capgemini's research shows that 70% of organizations find a lack of mid to senior-level talent a major challenge for scaling AI. Over half of AI-at-scale leaders (58%) have appointed an AI Head/Lead/Chief AI officer who can provide development teams with a vision, establish guidelines around prioritization of use cases, ethics and security, while harmonizing the use of platforms and tools for AI development. Organizations also need to focus on a wide range of skillsets for scaling AI applications, beyond pure AI technical skills, to include business analysts and change management specialists. However, there is currently a significant gap between demand and supply in important disciplines like machine learning or data visualization. Training and upskilling are therefore critical to address these gaps and ensure that these skillsets can be kept in-house.

Ethical AI interactions play a vital role in creating consumer satisfaction and trust

Regardless of the strong consumer and regulatory focus on ethical AI, Capgemini found that many organizations are not actively addressing issues like the need to have an empowered ethics team. The report found that less than one-third of struggling organizations (29% compared with 90% of AI-at-scale leaders) agree they have a detailed knowledge of how and why their AI systems produce the output they do. This is important for business executives to be able to trust organizational AI systems. At the same time, it is impossible to establish consumer trust if the customer-facing employees lack trust in the models or data organizations use.

"In light of the recent COVID-19 crisis, while organizations are looking at data and AI to bring resilience to their operations, there is an even stronger need for connections between tactical and strategic business objectives and implementation in order to achieve scale," says Anne-Laure Thieullent, Artificial Intelligence and Analytics Group Offer Leader at Capgemini. "Our research highlights that the most successful organizations combine efforts to rationalize and modernize their data landscape and data governance processes, focus on bringing new agile tools from partners ecosystems as well as approaches like DataOps⁴ and MLOps⁵ (machine learning ops) to develop and deploy AI solutions, nurture teams from diverse backgrounds, and set up balanced operating models."

The report concludes with recommendations of four principles for organizations to focus on to successfully scale AI:

• **Empower**: Build strong foundations providing easy access to trusted, quality data through the right data and AI platforms and tools along with agile practices

- **Operationalize**: Deploy AI through the right operating model, prioritize initiatives and ensure well-balanced governance while embedding ethics
- **Nurture**: Build diverse talent and collaboration with ecosystems and partners

• **Monitor and amplify**: Continuously monitor model accuracy and performance to deliver and amplify business outcomes

⁴ DataOps is a set of practices to democratize the usage of data and improve its accessibility to business, by setting up an agile cooperative process with data analysts, data engineers and operations, improving quality, agility, speed of ingestion and preparation as well as provision of data for use in AI and analytics use cases.
⁵ MLOps is a set of practices to shorten the time to update and go-live of intelligent and learning systems, while improving quality

⁵ MLOps is a set of practices to shorten the time to update and go-live of intelligent and learning systems, while improving quality and robustness, by setting up a cooperative process involving data scientists, ML engineers / developers, business and operations.



To read a full copy of the report, click here.

Research methodology

The Capgemini Research Institute surveyed 950 organizations that have on-going AI initiatives and conducted in-depth interviews with executives overseeing AI initiatives. The survey focused on organizations with at least \$1 bn in revenues in the last financial year from eleven countries (Australia, China, France, Germany, India, Italy, the Netherlands, Spain, Sweden, United Kingdom and United States) across eleven industries (Automotive, Banking, Consumer products, Energy, Insurance, Life sciences, Manufacturing, Public/government, Retail, Telecommunications, Utilities).

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